

**Amendments to the Drawings**

Reference character 226 designating “STN INTERFACE DRIVER” is now correctly designated as “GSTN INTERFACE DRIVER” in FIG. 2.

Reference character 276 designating “MR SYNCHRONIZATION” is now labeled with reference character 242 in FIG. 2.

Attachment: Replacement Sheet  
Annotated Marked-Up Drawings

**REMARKS**

Claims 1-13, 16, 17 are pending in the application after cancellation of claims 14 and 15.

Claims 1, 5, 9, 13 and 14 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular the Examiner requested clarification of suspending and resuming data transmission. Pages 8-9 of the specification were cited by the Examiner as being unclear when it references the deframer dropping idle data, but the "idle flag" is generated and sent over the PCM connection.

In the art of modem relays, in order to maintain a modem connection, that is, keep the modem connection alive, modem data must be continuously transmitted between modems regardless of the amount of actual user data traffic being transmitted over an IP network.

In the embodiment described in the specification, a deframer module 234 includes an idle detect module 274. A framer module 232 includes an idle generate module 272. The deframer module detects idle data from a modem and drops that idle data, preventing it from being transmitted over an IP network. The PCM connection referenced is that between the modem and the internet node, which contains the deframer module 234 and the framer module 232. The framer module 232 detects an idle period when no data is being sent from another internet node and generates 'idle flags' to be transmitted over the PCM connection back to a connected modem. This maintains a connection between the modem and another modem across the IP network without needing to transmit idle data across the IP network.

Claims 1, 5, 9 and 13 have been amended to clarify that transmission of data packets is suspended and resumed. Claim 14 has been cancelled.

Claims 1, 2, 4-6, 8-10, 12-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Barghouti et al. (US6535521) in view of Yamano et al. (US6445731). The rejection is respectfully traversed.

The Barghouti reference is directed to maintaining a physical layer link between a telephony gateway and a user in a given VoIP call session. The Examiner indicated the view that Barghouti teaches the suspension/resumption of transmission of data across an IP network. Barghouti teaches reassigning resources within an internet gateway to free up back-end modules

upon the detection of non-speech data. [column 5, lines 11-15] Once the back-end modules are reassigned the processing of the non-speech data is handled by the front-end module in a reduced rate idle mode. [column 4, lines 1-8] Front-end modules are each fully functional encoder devices capable of operating as either front-end or back-end devices. [column 4, lines 22-25]

Barghouti is dealing with detecting the start of a period of silence. This type of problem is also noted in the Background of the instant application at page 3, lines 3 through 9. However, the present invention is concerned with solving the problem of keeping the connection between data modems alive across an IP network. Barghouti does not address IP networks.

The Yamano reference discloses aspects of a conventional modem in the background section [column 1, lines 33-35] that relate to generating idle information in the form of nulls or a marking tone when no packets are available to a framer that is responsible for composing a continuous bit stream from packets received from a packet queue. FIG. 3 relates to an embodiment of a receiver circuit that receives a continuous analog signal from a communication channel such as a telephone line. Upon detecting the presence of idle information in the analog signal, the receiver circuit enters a standby mode whereby the processing requirements of the receiver circuit are reduced by disabling and/or reducing the processing precision of selected elements within the receiver circuit.

The section of Yamano cited by the Examiner is in the context of transmission over a telephone line between a modem transmitter circuit and a modem receiver circuit. The communication is between modems over a telephone line (e.g. switched telephone network) and not over an IP network.

The Examiner indicates the view that Yamano teaches the recited limitation of claim 1 “upon detecting no data packets received from the other internet node over an IP network to transmit to the first modem, regenerating idle data at the Internet node to transmit to the first modem, the regenerated idle data used to maintain a connection between the first modem and the second modem.” In particular, the Examiner refers to column 9, lines 1-15 and column 22, lines 13-25 regarding the receiver circuit detecting idle symbols. However, the receiver circuit in Yamano is directly connected to the transmitter circuit over a telephone line. Thus, this is not a teaching or suggestion that the modem receiver detects no data packets are received from another

Internet node over an IP network nor a teaching or suggestion that idle data is regenerated at the Internet node to transmit to the first modem.

The Examiner also refers to column 4, lines 6-17 regarding the receiver circuit of Yamano comparing expected idle symbols with soft symbols generated by the receiver circuit. The receiver circuit remains in standby (reduced processing) mode as long as the expected idle symbols and soft symbols match. Therefore, the generation function is performed in relation to reduced signal processing requirements at the receiver circuit and the generated soft symbols are not transmitted, as is clear from FIG. 3. Because the generated soft symbols are used only internal to the receiver circuit and are not transmitted, Yamano's receiver circuit is neither "regenerating idle data at the Internet node to transmit to the first modem," nor regenerating idle data to maintain a connection between modems. Thus, the recited limitation of claim 1 is not met by Yamano.

From the foregoing, it is clear that the combination of Barghouti and Yamano does not teach or suggest Applicants' claimed invention.

The foregoing arguments apply to claims 1, 5, 9 and 13 as amended. Claims 2, 4, 6, 8, 10, 12, 16, 17 depend from respective base claims 1, 5, 9 and 13 and are allowable for the same reasons. Accordingly, the present invention of claims 1, 2, 4-6, 8-10, 12, 13, 16, 17 is believed to be patentably non-obvious over the cited art. In view of the foregoing, removal of the rejection under 35 U.S.C. § 103(a) and acceptance of claims 1, 2, 4-6, 8-10, 12, 13, 16, and 17 are respectfully requested.

**CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Date: July 20, 2007